

REMARKS

The application has been amended to place the application in condition for allowance at the time of the next Official Action.

Claims 19-36 were previously pending in the application. Claims 19-21 are canceled, leaving claims 22-36 for consideration.

Claim 27 is amended to recite "said others" to address the claim objection noted in the Official Action.

Canceling claims 19-21 is believed to render moot the rejection over ALAIWAN et al. 5,235,700.

Claims 22-24, 26-28 and 30-32 and 34-35 are rejected as unpatentable over ALAIWAN et al. in view of OGAWA et al. 6,237,108. This rejection is respectfully traversed.

Claim 22 includes an access manager which manages access to the shared memory by each of the plurality of processors. When the plurality of processors are in contention to access the shared memory, the access manager selects one of the plurality of processors and permits the selected one of the plurality of processors to access the shared memory.

The position set forth in the Official Action is that ALAIWAN et al. do not teach an access manager as recited. In an attempt to overcome the shortcoming of ALAIWAN et al., the Official Action combines ALAIWAN et al. with OGAWA et al. OGAWA

et al. teaches a bus handler to manage access contention to a shared memory and permit one of the processors to access a shared memory when the processors are in contention. The conclusion set forth in the Official Action is that it would have been obvious to include the bus handler as taught by OGAWA in the system of ALAIWAN et al. to handle access contention between processors and improve the system's performance. This conclusion is believed untenable for at least the following reason.

MPEP §2143(01) provides that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

In the present case, the primary reference to ALAIWAN et al. teaches a device that switches data processing from an active processor to a backup processor. As disclosed at column 8, lines 50-64 of ALAIWAN et al., there are five possible states for the processors (in a two-processor configuration). These states are shown in the Table at column 8, lines 56-64 of ALAIWAN et al.

As ascertained from the above passage and from the rest of the disclosure of ALAIWAN et al., the processors of ALAIWAN et al. are never in contention. Rather, one processor is active and

if that processor should fail, another processor then becomes active. There is no point in time where both processors are active and are in contention to access a shared memory.

Modifying ALAIWAN et al. to include an access manager to manage access to a shared memory when a plurality of processors are in contention would change the principle of operation of ALAIWAN et al. Since ALAIWAN et al. are structured to never have contention between processors, such proposed modification is not sufficient to render the claims *prima facie* obvious.

Independent claim 26 also includes a contention determiner which detects whether the plurality of processors are in contention to access a shared memory. Independent claim 30 includes the step of selecting one processor of a plurality of processors and permitting the one processor to access a shared memory when the plurality of processors are in contention for the shared memory. Independent claim 34 includes selecting one processor of a plurality of processors and permitting the one processor to access a shared memory shared by the plurality of processors when the plurality of processors are in contention for the share memory.

Independent claim 35 includes selecting one processor included in a plurality of processors in permitting the one processor to access a shared memory for the plurality of

processor in contention for the shared memory. The analysis above regarding claim 22 is equally applicable to claims 26, 30, 34, and 35.

Claims 23, 24, 27, 28, 31 and 32 depend from one of the claims 22, 26 and 30 and further define the invention and are also believed patentable over the proposed combination of references.

Claims 25, 29 and 33 are rejected as unpatentable over ALAIWAN et al. in view of OGAWA et al. and further in view of HAUCK et al. 6,587,904. This rejection is respectfully traversed.

HAUCK et al. is only cited for the teaching that if arbitration is not won within a specified amount of time, then a reset is requested. HAUCK et al. do not teach or suggest what is recited in claims 22, 26, and 30. As set forth above, ALAIWAN et al. in view of OGAWA et al. do not teach or suggest what is recited in claims 22, 26, and 30. Since claims 25, 29 and 33 depend from claims 22, 26 and 30, respectively and further define the invention, the proposed combination of references would not render obvious claims 25, 29 and 33.

Claim 36 is rejected as unpatentable over ALAIWAN et al. in view of OGAWA et al. and further in view of MOGUL 6,704,798. This rejection is respectfully traversed.

Claim 36 includes selecting one processor of a plurality of processors and permitting the one processor to access a shared memory shared by the plurality of processors when the plurality of processors are in contention for the share memory. The analysis above regarding claim 22 as to ALAIWAN et al. and OGAWA et al. is equally applicable to claim 36. MOGUL is only cited for the teaching of a data signal embedded in a carrier wave representing an instruction sequence. MOGUL does not overcome the shortcomings of ALAIWAN et al. in view of OGAWA et al. Accordingly, the proposed combination of references would not render obvious claim 36.

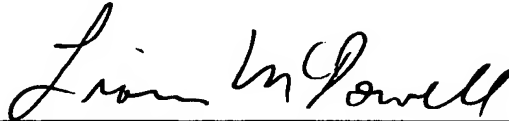
In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional  
fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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